

### REMARKS

Claims 1, 2, 4-8, and 42-51 are pending in this application. Claims 31-41 are canceled without prejudice. Claims 1 and 2 are amended, and new claims 42-51 are added. Support for the amendments and new claims can be found throughout the specification and claims as filed, e.g., at page 6, lines 19-27, page 12, lines 1-3, page 14, lines 8-10, page 14, line 25 to page 15, line 14, and page 16, lines 12-16. No new matter has been added.

#### Claim Objections

Claim 1 was objected to for reciting non-elected subject matter. All recitations of "KPL67A" have been deleted from claim 1, thus obviating the objection.

Claim 4 was also objected to for reciting non-elected subject matter. Applicants point out that the Restriction Requirement dated May 16, 2006, indicates that the election regarding claim 4 was a species election. As long as no generic claim is finally rejected, Applicants need not delete unelected species. Applicants request forbearance of the objection while generic claims are still pending.

#### 35 USC § 112, second paragraph

Claim 2 was rejected under § 112, second paragraph, for alleged indefiniteness for reciting "GenBank Accession Number AL136819." Applicants have deleted this phrase from claim 2, thus obviating the rejection.

#### 35 USC § 112, first paragraph – Written Description

Claims 1 and 4-8 were rejected as allegedly failing to comply with the written description requirement. The Office Action at page 4 states that

The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1 is directed to a method of use of a **genus** of KIF18A polypeptides which have been merely defined by function. (*emphasis in original*)

Applicants have amended claim 1 to recite that the KIF18A polypeptide "is at least 95% identical to SEQ ID NO:2" and "localizes to the distal ends of astral microtubules in dividing cells." Applicants submit that the claim as amended clearly describes the structure of the genus of KIF18A polypeptides claimed, and that this language is in line with the revised interim guidelines regarding written description. Applicants request reconsideration and withdrawal of the rejection for alleged lack of written description under 35 USC § 112, first paragraph.

35 USC § 112, first paragraph – Enablement

Claims 1, 3-4, and 6-8 were rejected under § 112 for alleged lack of enablement. Applicants assume that the list of rejected claims is in error, as claim 3 was withdrawn as related to non-elected subject matter. Applicants assume that claims 1, 2, 4, and 6-8 were intended to be included in the rejection, and Applicants request confirmation of this understanding or prompt correction if this assumption is in error. The Office Action at page 6 states that

The specification fails to teach which regions beyond nucleus of dividing cells and specifically away from the distal ends of astral microtubules can modulate KIF18A polypeptide localize to. No examples of such regions are provided either. Current state of prior art indicates that "altered localization" within a cell, includes moving from nucleus to the cytoplasm, vice versa, moving to membrane or vice versa, moving to specific organelles such as ribosome etc. and the pattern of localization changes if the cell is dividing or not.

Applicants note that claim 5 was not included in the rejection for alleged lack of enablement. Applicants have amended claim 1 to incorporate language similar to claim 5. Amended claim 1 recites that "the altered localization is localization to a region other than a growth cone of an interphase cell or the distal ends of astral microtubules of a dividing cell." The specification, at page 14, lines 9-10, clearly indicates that under wild-type conditions, KIF18A localizes to growth cones in interphase cells and the distal ends of astral microtubules in dividing cells. Based on the guidance in the specification and the relative skill in the art, one of ordinary skill could easily localize KIF18A polypeptides in these regions in the appropriate cells and could also identify an altered localization, i.e., a localization outside of these regions.

Applicants submit that the claims as amended are fully enabled. Applicants request reconsideration and withdrawal of the rejection for alleged lack of enablement.

Comments regarding listed references

Applicants note that page 7 of the Office Action lists two PCT publications that "may be of relevance to this invention." Applicants request that the Examiner clarify how this art may be relevant. Applicants do not concede that the art is relevant to the patentability of the pending claims.

SUMMARY

Applicants submit that all of the claims are in condition for allowance and request confirmation of such by the Examiner. If the Examiner feels it would advance the prosecution of the present application, she is invited to telephone the undersigned at (617) 956-5985.

No fees are believed to be required. Please apply any required charges or credits to deposit account 06-1050, referencing Attorney Docket No. 07917-198001.

Respectfully submitted,

Date:

Dec. 7, 2006

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